Help the Next Generation of Transportation Professionals Learn about the Safe System Approach for STEM/STEAM DAY on November 8!

What is STEM/STEAM Day?
STEM/STEAM Day is held annually on November 8. This day inspires kids to explore and pursue their interests in Science, Technology, Engineering, Art, and Math. It's a great opportunity for STEM/STEAM professionals to hold K-12 outreach events.

This STEM/STEAM Day, the ITE STEM Committee wants to highlight ITE STEM Outreach Activities that help kids better understand a topic that is important to everyone: transportation safety.

What is the Safe System Approach?
The Safe System Approach is a new way of planning and designing for traffic safety that is rapidly becoming more widely adopted by the transportation community.

The goal of a Safe System Approach is to design and operate our vehicles and infrastructure in a manner that anticipates human error and accommodates human injury tolerances with a goal of reducing fatal and serious injuries.

When we think about creating a safe transportation system we need to recognize that people make mistakes and the human body can only tolerate a certain amount of physical forces. These principles are central to the Safe System Approach.

The Safe System Approach differs from the previous safety practice because its focus is human-centered and fully integrates the needs of all users of the transportation system (pedestrians, bicyclists, older, younger, disabled, etc.).

For more information about the Safe System Approach visit https://www.transportation.gov/NRSS/SafeSystem
K-12 STEM OUTREACH ACTIVITIES FOR STEM/STEAM Day that Highlight the Safe System Approach

SAFE ROAD USERS
Activity: Can I Stop in Time?
- Students calculate and measure the distance it takes for a car to come to a complete stop based on various conditions.
- FHWA notes that speeding is one of the top three most frequent and persistent behavioral safety factors in fatal crashes.

SAFE VEHICLES
Activity: Safety Benefits of Autonomous Driving
- Student teams conduct online research to learn more about safety benefits accrued at each of the levels of autonomous driving and present their findings to the group.
- Then each team can debate which level of automation will provide the most safety benefits.

SAFE SPEEDS
Activity: Streets Have Personality Game
- Students take on a persona and act out how they would travel on different types of roads. After each turn, the class discusses the implications of the road context and design.
- FHWA strongly encourages the setting of context-appropriate speed limits and the designing of roads that help to “self-enforce” speed limits.

SAFE ROADS
Activity: Pedestrian Signal Timing
- Through role playing, students understand how ‘Walk’ and ‘Flashing Don’t Walk’ traffic signal intervals should accommodate pedestrians of all ages with different walking characteristics.

Activity: Points of Conflict
- Students determine the number of conflict points and the average potential collision angles for different intersection designs

POST-CRASH CARE
We need your help!
- We don’t currently have an activity related to this topic, so we challenge you to create an activity and submit it to us.
- If accepted, you and your activity will be featured in a future ITE Spotlite and on the ITE STEM Resources Webpage.

For more information – visit https://www.ite.org/technical-resources/councils/transportation-education-council/science-technology-engineering-and-math-stem-resources/.